NUCLEAR INNOVATION ALLIANCE

May 14, 2026

U.S. Nuclear Regulatory Commission
11555 Rockville Pike
Rockville, Maryland 20852

Subject: Public Comment on Draft Interim Staff Guidance: "NRC Application Pathway for Reactor Designs Previously Authorized by U.S. Department of Energy or Department of War" (Docket ID NRC-2026-0760)

Dear NRC Staff,

The Nuclear Innovation Alliance (NIA) is an independent, non-profit, non-partisan "think-and-do" tank whose mission is to help create the conditions for success for new nuclear energy so it can play a major role as an energy security and climate solution. Through policy analysis, research, outreach, and education, NIA is catalyzing the next era of nuclear energy. We focus on regulatory modernization, federal and state policy, and enabling private investment to support new reactor commercialization while meeting national environmental and energy security goals.

NIA appreciates the opportunity to comment on the NRC's draft Interim Staff Guidance (ISG), "NRC Application Pathway for Reactor Designs Previously Authorized by U.S. Department of Energy or Department of War."

NIA supports the Commission's objective of enabling more efficient licensing pathways by appropriately leveraging prior federal work. If implemented effectively, this pathway could reduce unnecessary duplication, improve regulatory predictability, accelerate deployment timelines, and better align federal demonstration efforts with successful commercial deployment outcomes.

As noted in NIA's recent comments on the related proposed rulemaking, however, efficiency alone is not sufficient.[1] To succeed over the long term, this pathway must also preserve and visibly reinforce the NRC's independence, credibility, transparency, and predictability. These characteristics are essential not only for safety, but also for durable regulatory reform that can withstand changes in administrations, markets, and public scrutiny.

[1] Public Comment on NRC Reviews of Reactor Designs Previously Authorized by U.S. Department of Energy or Department of War

NIA appreciates the NRC's effort to provide early implementation guidance. The draft ISG would benefit from additional operational specificity regarding how NRC staff should evaluate and credit prior Department of Energy (DOE) or Department of War/Department of Defense (DOW/DOD) analyses in practice. Greater clarity in this area would improve predictability for applicants, consistency for reviewers, and public confidence in the resulting licensing decisions.

Below are several areas where additional clarification would strengthen the ISG and improve its effectiveness.

1. Operational Clarity and Specificity

NIA appreciates that the draft ISG attempts to provide a roadmap for applicants seeking to leverage prior DOE or DOW/DOD authorization work. However, much of the guidance currently relies on broad, repeated statements directing staff to leverage prior federal work "to the maximum extent practical," without providing specificity regarding how to do that in practice.

The ISG would benefit from additional operational detail regarding:

- the evidentiary basis for leveraging decisions;
- expectations for demonstrating applicability of prior analyses;
- treatment of differences in assumptions or operating conditions;
- acceptable approaches for addressing gaps between DOE/DOW and NRC frameworks; and
- examples illustrating varying levels of acceptable reliance on prior federal work.

NIA recommends providing additional implementation detail that would improve consistency across reviews and reduce uncertainty for applicants, particularly early users of this pathway.

2. Distinguishing Between "Delta" Reviews and De Novo NRC Reviews

In several appendices, the draft ISG appears to contemplate both:
1. substantial reliance on prior DOE/DOW analyses, and
2. a largely de novo NRC-originated reassessment of the same issues.

In some cases, this creates uncertainty regarding the intended scope of NRC review.

The ISG should more clearly distinguish between circumstances where NRC intends to substantially leverage prior federal analyses and circumstances where NRC intends to perform a de novo NRC review. Such clarity would provide applicants and NRC staff the efficiency and predictability benefits this pathway is intended to provide.

For example, Appendix B appears to contemplate both a "clean sheet" determination of licensing basis events and a comparison against prior DOE/DOW analyses. Appendix B would benefit from clearer guidance regarding when NRC expects a focused "delta" review building upon prior federal analyses versus a de novo NRC assessment.

Appendix J would also benefit from additional clarity regarding how prior DOW/DOD evaluations of external hazards and hostile action scenarios may inform NRC external hazards reviews. In some cases, military reactor designs may already incorporate design considerations for external events that exceed typical civilian natural hazard assumptions, such as seismic loads. In the case of DOE, a hazard evaluation may be specific to site conditions that are less challenging than generic NRC site envelopes. In this case, an applicant should have the option to reevaluate for NRC's envelope conditions, or to request that NRC apply limiting conditions to the license that would enable restricted siting using the existing external hazards analysis. The applicant should have the option to request a limiting license condition from the NRC if such a restriction would meet the applicant's siting plans and provide an alternate approach to demonstrating reasonable assurance of adequate safety compared to considering analysis of all conditions within the NRC envelope. Additional guidance regarding how such prior evaluations may appropriately inform NRC review could help reduce unnecessary duplication while preserving NRC's independent safety determination.

NIA supports the Commission's stated position that this pathway does not constitute "rubber stamping" of DOE or DOW/DOD decisions and that NRC retains independent authority to determine whether applicable NRC requirements are satisfied. At the same time, the efficiency goals of this pathway are best achieved when prior federal analyses are meaningfully leveraged where appropriate. NIA recommends that the ISG clarify how to leverage prior reviews.

3. Transparency of Mapping and Crosswalk Approaches

The effectiveness of this pathway depends heavily on how prior DOE or DOW/DOD work is mapped to NRC requirements.

The ISG references possible future development of crosswalks and related coordination mechanisms between DOE and NRC. NIA encourages the Commission to ensure that any such mapping approaches, methodologies, or crosswalk frameworks are sufficiently transparent and publicly accessible.

Appendices D and E illustrate areas where additional specificity regarding acceptable analytical methodologies would be particularly valuable. For example, applicants would benefit from clearer NRC guidance regarding how DOE or DOW/DOD approaches to source term and dose consequence analyses may be leveraged, including identification of acceptable methodologies, applicability limitations, and areas requiring supplemental NRC-specific analysis. NIA recommends NRC make publicly available documentation of such determinations, similar in concept to topical report approvals, which could improve predictability, efficiency, and public confidence.

More broadly, applicants and stakeholders would benefit from greater clarity regarding:

- key differences between DOE/DOW and NRC analytical approaches;
- expectations for demonstrating applicability; and

- areas where supplemental NRC-specific analyses may still be necessary.

Providing transparent guidance in this area would improve efficiency while reinforcing public confidence in the integrity of NRC's independent safety determinations.

4. Relationship to Part 53 and Future Licensing Frameworks

The draft ISG currently focuses on applications under 10 CFR Parts 50 and 52. However, the Commission is simultaneously implementing broader modernization efforts through Part 53 and other new reactor licensing initiatives (e.g. Part 57).

NIA recommends that the NRC clarify:

- how this leveraging approach interfaces with Part 53;
- whether similar leveraging concepts are expected to apply under Part 53 and Part 57; and
- how applicants should evaluate licensing pathway selection when considering use of prior DOE or DOW/DOD authorization work.

As future licensing frameworks continue to evolve, maintaining consistency across pathways will help improve predictability for developers, investors, and other stakeholders.

5. Transparency, Learning, and Continuous Improvement

NIA appreciates the Commission's repeated emphasis that this pathway will maintain NRC's independent decision-making authority and transparency obligations. Maintaining robust public documentation explaining how prior DOE or DOW/DOD analyses were considered and relied upon will be essential to sustaining public confidence in this approach.

In addition, because this pathway is novel, implementation practices will likely evolve through early applications. NIA encourages the Commission to periodically evaluate lessons learned from initial applicants and update associated guidance over time to improve efficiency, reliability, and clarity, consistent with the NRC's Principles of Good Regulation.

Conclusion

NIA appreciates the Commission's leadership on this issue and the opportunity to provide input. This is a promising pathway that could meaningfully support advanced reactor commercialization if implemented with sufficient clarity, predictability, transparency, and institutional durability. If you have any questions, please contact Miranda McGuire at mmcguire@nuclearinnovationalliance.org.

Sincerely,

Judi Greenwald
President & CEO
Nuclear Innovation Alliance